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                to 300,000 in multiple databases
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                WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 19 MAR 16 CASREACT coverage extended
NEWS 20 MAR 20 MARPAT now updated daily
NEWS 21 MAR 22 LWPI reloaded
NEWS 22 MAR 30 RDISCLOSURE reloaded with enhancements
NEWS 23 APR 02 JICST-EPLUS removed from database clusters and STN
NEWS 24 APR 30 GENBANK reloaded and enhanced with Genome Project ID field
NEWS 25 APR 30 CHEMCATS enhanced with 1.2 million new records
NEWS 26 APR 30 CA/CAplus enhanced with 1870-1889 U.S. patent records
NEWS 27 APR 30 INPADOC replaced by INPADOCDB on STN
NEWS 28 MAY 01 New CAS web site launched
NEWS 29 MAY 08
                CA/CAplus Indian patent publication number format defined
NEWS 30 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display
                fields
NEWS 31 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 32 MAY 21
                TOXCENTER enhanced with BIOSIS reload
NEWS 33 MAY 21
                CA/CAplus enhanced with additional kind codes for German
                patents
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NEWS EXPRESS
             MACINTOSH VERSION IS V6.0c(ENG) AND V6.0jc(JP),
             AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
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L1 6510 PARKINSON? DISEAS? (PARKINSON? (W) DISEAS?)

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L2 3034 L1 AND PY<2003

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L3 84 L2 AND ASSAY

=> d ibib abs hitstr 1-10

L3 ANSWER 1 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:720060 CAPLUS

DOCUMENT NUMBER:

140:174319

TITLE:

Expression of human AADC gene in COS-7 cells and

assay of its activity

AUTHOR(S):

Yang, Hui; Zhao, Huanying; Zhang, Zhi; Duan, Devi;

Cai, Qing; Xu, Qunyuan

CORPORATE SOURCE:

Beijing Institute of Neuroscience, Capital University of Medical Sciences, Beijing, 100054, Peop. Rep. China

SOURCE:

Zhongguo Zuzhi Huaxue Yu Xibao Huaxue Zazhi (

2002), 11(4), 365-369

CODEN: ZZXZFZ; ISSN: 1004-1850

PUBLISHER:

Zhongguo Zuzhi Huaxue Yu Xibao Huaxue Zazhi Bianjibu

DOCUMENT TYPE: LANGUAGE: Journal Chinese

AB Study the role of human aromatic amino acid decarboxylase (AADC) in the metabolism of dopamine (DA). The total RNA was isolated from fetal brain. RT-PCR was performed by using special primers of AADC. The cDNA fragment of AADC was ligated into plasmid pGEM-T. An expression vector, pBK-RSV-AADC, was constructed and then transfected into COS-7 cells. The amplified fragment was 1442 bp with RT-PCR, and the sequence was exactly the same as that reported from Genbank [NM000790]. The expression of the gene in the transfected COS-7 cells was assayed by in situ hybridization and the ratio of pos. cells was 70-80%. The activity was evaluated by HPLC, and the COS-7 cells transfected with AADC produced 4 times as much DA as those cells without transfection. The results indicated that the cloned human AADC gene can be expressed in COS-7 cells and show bioactivity. It could be used for the gene therapy of Parkinson's disease.

L3 ANSWER 2 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:8776 CAPLUS

DOCUMENT NUMBER:

139:4934

TITLE:

Changes of dopamine receptor activity in caudalputamen

of Parkinson disease rat model

AUTHOR(S):

Zhang, Wangming; Xu, Ruxiang; Cai, Yingqian; Du,

Mouxuan; Zhang, Shizhong

CORPORATE SOURCE:

Zhujiang Hospital, First Military Medical University,

Canton, 510282, Peop. Rep. China

SOURCE:

Jiefangjun Yixue Zazhi (2002), 27(7),

615-617

CODEN: CFCHBN; ISSN: 0577-7402

PUBLISHER:

Jenminjun Chubanshe

activity of D1 dopamine receptor is not significantly changed.

DOCUMENT TYPE:

Journal

LANGUAGE:

constant

Chinese

AB The roles and changes of dopamine receptor activity and their subtypes were studied during the onset of Parkinson disease

(PD) in the 6-hydroxydopamine-lesioned PD rat model. Radioligand binding assay (RLBA) and Scanchard drawing were used to measure the maximal binding capacity of receptor (Bmax) and equilibrium dissociation

(KD) of D1 and D2 dopamine receptors in caudal-putamen of the model and control rats at different time-point. The results of RLBA study revealed D2 dopamine receptor Bmax was significantly increased and KD was significantly decreased in the caudal-putamen ipsilateral to the lesion in rat model, and the changes reached the peak in one month rat model group. In contrast, the caudal-putamen D1 receptors were far less affected, with no consistent changes in the same model groups as compared with the control, except that 2 wk model group showed Bmax was slightly decreased while KD was slightly increased. The study confirms that D2 dopamine receptor is upregulated in the caudal-putamen ipsilateral to the lesion in PD rat model, and the affinity of the receptors is increased, but the

L3 ANSWER 3 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2002:957995 CAPLUS

DOCUMENT NUMBER: 138:396048

TITLE: Tubuloside B from Cistanche salsa rescues the PC12

neuronal cells from 1-methyl-4-phenylpyridinium

ion-induced apoptosis and oxidative stress

AUTHOR(S): Sheng, Guoqing; Pu, Xiaoping; Lei, Li; Tu, Pengfei;

Li, Changling

CORPORATE SOURCE: Department of Molecular and Cellular Pharmaoclogy,

School of Pharmaceutical Sciences, Peking University,

Beijing, 100083, Peop. Rep. China

Planta Medica (2002), 68(11), 966-970 CODEN: PLMEAA; ISSN: 0032-0943 SOURCE:

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal LANGUAGE: English

The neuroprotective effects of tubuloside B, one of the phenylethanoids isolated from the Chinese herbal medicine Cistanche salsa, on 1-methyl-4-phenylpyridinium ion (MPP+)-induced apoptosis and oxidative stress in PC12 neuronal cells were investigated. PC12 cells treated with MPP+ underwent apoptotic death as determined by MTT assay, flow cytometry and DNA agarose gel electrophoresis; intracellular accumulation of reactive oxygen species (ROS) was measured by DCFH-DA staining with laser scanning confocal microscopy (LSCM). Simultaneous treatment with tubuloside B markedly attenuated MPP+-induced cytotoxicity, DNA fragmentation, and intracellular accumulation of ROS. These results strongly indicate that tubuloside B prevents MPP+-induced apoptosis and oxidative stress. Tubuloside B may be applied as an antiparkinsonian agent.

REFERENCE COUNT: THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS 16 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:877293 CAPLUS

DOCUMENT NUMBER: 138:219541

AUTHOR(S):

TITLE: The activity change of dopamine D2 receptors in caudal-putamen of Parkinson's disease model rats

Zhang, Wangming; Xu, Ruxiang; Cai, Yingqian; Zhang,

Shizhong; Du, Mouxuan

CORPORATE SOURCE: Department of Neurosurgery, Zhujiang Hospital, First

Military Medical University, Canton, 510282, Peop.

Rep. China

SOURCE: Zhonghua Shenjing Waike Jibing Yanjiu Zazhi (

2002), 1(3), 266-268

CODEN: ZSWJAU; ISSN: 1671-2897

PUBLISHER: Disi Junyi Daxue Diyi Fushu Yiyuan

DOCUMENT TYPE: Journal LANGUAGE: Chinese

Objective To explore the activity change of the dopamine D2 receptor and its rule during the process of Parkinson's disease (PD). Methods On the basis of 6-hydroxydopamine-lesioned PD model rats, the radioligand binding assay (RLBA) and Scanchard drawing were used to measure the

maximal binding capacity of receptor (Bmax) and equilibrium dissociation constant

(KD) of the dopamine D2 receptor in the caudal-putamen of the model and control rats on different time-points. Results The RLBA revealed that the dopamine D2 receptor Bmax increased significantly and the KD significantly decreased in the caudal-putamen ipsilateral to the lesion in the model rats, and the changes reached the peak after one month. The D2 receptor affinity increased significantly. Conclusion The study confirms that the dopamine D2 receptors are up-regulated with marked supersensitivity in the caudal-putamen ipsilateral to the lesion in the PD model rats.

ANSWER 5 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN . ACCESSION NUMBER: 2002:756889 CAPLUS

DOCUMENT NUMBER:

138:53784

TITLE:

AUTHOR(S):

Genetic polymorphisms of microsomal and soluble

epoxide hydrolase and the risk of Parkinson's disease Farin, Federico M.; Janssen, Patricia; Quigley, Sean;

Abbott, Denise; Hassett, Christopher; Smith-Weller, Terri; Franklin, Gary M.; Swanson, Phillip D.;

Longstreth, W. T., Jr.; Omiecinski, Curtis J.;

Checkoway, Harvey

CORPORATE SOURCE:

Departments of Environmental Health, University of

Washington, Seattle, WA, USA

SOURCE:

PUBLISHER:

Pharmacogenetics (2001), 11(8), 703-708

CODEN: PHMCEE; ISSN: 0960-314X Lippincott Williams & Wilkins

DOCUMENT TYPE:

Journal

LANGUAGE: English

Oxidative stress is hypothesized to play a major role in the destruction of dopaminergic neurons, which is associated with Parkinson's disease. Epoxides are potentially reactive intermediates formed through the oxidative metabolism of both exogenous and endogenous substances that contribute to cytotoxic damage mediated by oxidative stress. The microsomal (EPHX1) and soluble (EPHX2) epoxide hydrolases function to regulate the oxidation status of a wide range of xenobiotic- and lipid-derived substrates; therefore, interindividual variation in these pathways may mitigate epoxide-related cellular injury. In this investigation, the authors examined the potential association between the risk of Parkinson's disease and genetic variation within the EPHX1 and EPHX2 genes. Fluorescent 5' nuclease-based assays were developed to identify the allelic status of individuals with respect to specific single nucleotide polymorphisms in exons 3 and 4 of the EPHX1 gene and exons 8 and 13 of the EPHX2 gene. EPHX1 and EPHX2 genotype data were obtained from 133 idiopathic Parkinson's disease patients and 212 control subjects matched on age, gender and ethnicity. No statistically significant differences were found in the distribution of the reference and variant alleles between Parkinson's disease and control subjects, or when results were stratified by gender. Therefore, common polymorphisms within EPHX1 and EPHX2 do not appear to be important risk factors for Parkinson's disease. 34

REFERENCE COUNT: THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN

2002:740411 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

138:53764

TITLE:

Nerve growth factor levels in Parkinson disease and experimental parkinsonian rats

AUTHOR(S):

Lorigados Pedre, Lourdes; Pavon Fuentes, Nancy; Alvarez Gonzalez, Lazaro; McRae, Amanda; Serrano Sanchez, Teresa; Blanco Lescano, Lissette; Macias

Gonzalez, Raul

CORPORATE SOURCE:

Centro Internacional de Restauracion Neurologica, C.

Habana, 11300, Cuba

SOURCE:

Brain Résearch (2002), 952(1), 122-127

CODEN: BRREAP; ISSN: 0006-8993

PUBLISHER:

Elsevier Science B.V.

DOCUMENT TYPE:

Journal English

LANGUAGE:

Nerve growth factor (NGF) is well established for its ability to promote growth and survival for specific neuronal populations. However, its participation in the pathogenesis of human nervous system disorders such as Parkinson's disease (PD) remains to be resolved. This study examined NGF levels in the serum of healthy persons, in patients with PD and in parkinsonian rats using a double site immune-enzymic assay (EIA) with the murine 27/21 anti-beta-NGF monoclonal antibody. PD patients were divided in two groups according to the stages of the disease (Grade: I-II

and Grade: III-IV of Hoenh and Yahr scale). NGF levels in parkinsonian rats showed significant (P<0.01) redns. when compared with serum from normal animals. The NGF levels in early states of the disease (Grade I-II) showed greater redns. (P<0.01) in comparison to those with advanced stages (Grade III-IV). We consider that alterations in NGF levels may reflect ongoing neurodegenerative processes in PD.

REFERENCE COUNT:

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN

39

ACCESSION NUMBER: 2002:700144 CAPLUS

DOCUMENT NUMBER: 138:248376

TITLE: Protective effect of ginsenoside Rg1 against

MPTP-induced apoptosis in mouse substantia nigra

neurons

AUTHOR(S): Chen, Xiao-Chun; Chen, Ying; Zhu, Yuan-Gui; Fang,

Fang; Chen, Li-Min

CORPORATE SOURCE: Fujian Institute of Geriatrics, Union Hospital, Fujian

Medical University, Fuzhou, 350001, Peop. Rep. China

SOURCE: Acta Pharmacologica Sinica (2002), 23(9),

829-834

CODEN: APSCG5; ISSN: 1671-4083

PUBLISHER: Science Press

DOCUMENT TYPE: Journal LANGUAGE: English

To explore the possible mechanism of the ginsenoside Rg1 in protecting substantia nigra neurons from 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP)-induced apoptosis in C57BL mice. C57BL male mice were given with MPTP to prepare Parkinson's disease mouse model. Different doses of Rg1 (2.5, 5.0, and 10.0 mg/kg, resp.) were given 3 d prior to MPTP in the pretreatment groups. Nissl staining, TH immunostaining, and TUNEL labeling were used to observe the damage and apoptosis of nigral neurons. The immunohistochem. assay was used to detect the protein levels of Bcl-2, Bcl-xL, Bax, inducible nitric oxide synthase (iNOS), neuronal NOS (nNOS), and cleaved caspase-3. Compared with MPTP model group, pretreatment with Rg1 (5.0 and 10.0 mg/kg) was shown to increase the Nissl staining neurons and TH-pos. neurons (P<0.01), and to decrease the TUNEL-pos. neurons in the substantia nigra zona compacta (P<0.01). Moreover, Rg1 elevated the levels of cleaved caspase-3, Bax, and iNOS, but reduced the levels of Bcl-2 and Bcl-xL (P<0.01). Rg1 has protective effect against MPTP-induced apoptosis and this effect may be attributed to enhancing Bcl-2 and Bcl-xL expression, reducing Bax and iNOS expression, and inhibiting activation of caspase-3.

REFERENCE COUNT:

14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:684832 CAPLUS

DOCUMENT NUMBER: 138:265507

TITLE: Protective effect of verbascoside on

1-methyl-4-phenylpyridinium ion-induced neurotoxicity

in PC12 cells

AUTHOR(S): Sheng, Guo-Qing; Zhang, Jin-Rong; Pu, Xiao-Ping; Ma,

Jian; Li, Chang-Ling

CORPORATE SOURCE: School of Pharmaceutical Sciences, Department of

Molecular and Cellular Pharmacology, Peking University, Beijing, 100083, Peop. Rep. China

SOURCE: European Journal of Pharmacology (2002),

451(2), 119-124

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AΒ The neuroprotective effects of verbascoside, one of phenylpropanoid glucoside isolated from the Chinese herbal medicine Buddleja officinalis Maxim, on 1-methyl-4-phenylpyridinium ion (MPP+) induced apoptosis and oxidative stress in PC12 neuronal cells were investigated. Treatment of PC12 cells with MPP+ for 48 h induced apoptotic death as determined by 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay and flow cytometry, the activation of caspase-3 measured by the caspase-3 activity assay kit, the reduction in mitochondrial membrane potential with laser scanning confocal microscopy and the increase in the extracellular hydrogen peroxide level. Simultaneous treatment with verbascoside markedly attenuated MPP+-induced apoptotic death, increased extracellular hydrogen peroxide level, the activation of caspase-3 and the collapse of mitochondrial membrane potential. results strongly indicate that verbascoside may provide a useful therapeutic strategy for the treatment of oxidative stress-induced neurodegenerative disease such as Parkinson's disease.

REFERENCE COUNT:

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 9 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN

16

ACCESSION NUMBER:

2002:683854 CAPLUS

DOCUMENT NUMBER:

138:53751

TITLE:

 α -Synuclein exhibits competitive interaction

between calmodulin and synthetic membranes

AUTHOR(S):

Lee, Daekyun; Lee, Sun-Young; Lee, Eui-Nam; Chang,

Chung-Soon; Paik, Seung R.

CORPORATE SOURCE:

Department of Biochemistry, College of Medicine, Inha

University, Inchon, 402-751, S. Korea

SOURCE:

Journal of Neurochemistry (2002), 82(5),

1007-1017

CODEN: JONRA9; ISSN: 0022-3042

PUBLISHER:

Blackwell Science Ltd.

DOCUMENT TYPE:

Journal LANGUAGE: English

 α -Synuclein, a pathol. component of Parkinson's disease by constituting the Lewy bodies, has been suggested to be involved in membrane biogenesis via induction of amphipathic α -helixes. Since the amphipathic α -helix is also known as a recognition signal of calmodulin for its target proteins, mol. interaction between α -synuclein and calmodulin has been investigated. By employing a chemical coupling reagent of N-(ethoxycarbonyl)-2-ethoxy-1,2dihydroquinoline, a-synuclein has been shown to yield a heterodimeric 1: 1 complex with calmodulin on SDS-PAGE in the presence and even absence of calcium, whereas β -synuclein was more dependent upon calcium for its calmodulin interaction. The selective calmodulin interaction of α -synuclein in the absence of calcium was also demonstrated with the aggregation kinetics of the synucleins in which only the α -synuclein aggregation was affected by calmodulin. A reversible binding assay confirmed that α -synuclein interacted with the Ca2+-free as well as the Ca2+-bound calmodulins with almost identical KdS of 0.35 μM and 0.31 μM , resp., while β -synuclein preferentially recognized the Ca2+-bound form with a Kd of 0.68 μ M. By using a C-terminally truncated α -synuclein of α -syn97, the calmodulin binding site(s) on α -synuclein was (were) shown to be located on the N-terminal region where the amphipathic $\alpha\text{-helixes}$ have been suggested to be induced upon membrane interaction. By employing liposome and calmodulin in a state of being either soluble or immobilized on agarose, actual competition of α -synuclein between membranes and calmodulin was demonstrated with the observation that α -synuclein previously bound to the liposome was released upon specific interaction with the calmodulins. Taken together, these data may suggest that α -synuclein could act not only as a neg. regulator for calmodulin in the presence and even absence of

calcium, but it could also exert its activity at the interface between calmodulin and membranes.

REFERENCE COUNT:

46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 10 OF 84 CAPLUS COPYRIGHT 2007 ACS on STN L3

ACCESSION NUMBER:

CORPORATE SOURCE:

2002:622254 CAPLUS

DOCUMENT NUMBER:

138:147606

TITLE:

Protective effects of green tea polyphenols and their major component, (-)-epigallocatechin-3-gallate

(EGCG), on 6-hydroxydopamine-induced apoptosis in PC12

AUTHOR(S):

Nie, Guangjun; Cao, Yuanlin; Zhao, Baolu Laboratory of Visual Information Processing,

Department of Molecular and Cell Biophysics, Institute of Biophysics, Academia Sinica, Beijing, Peop. Rep.

China

SOURCE:

Redox Report (2002), 7(3), 171-177 CODEN: RDRPE4; ISSN: 1351-0002

PUBLISHER:

Maney Publishing

DOCUMENT TYPE:

Journal English

LANGUAGE:

Green tea polyphenols exert a wide range of biochem. and pharmacol. effects, and have been shown to possess antimutagenic and anticarcinogenic properties. Oxidative stress is involved in the pathogenesis of Parkinson's disease. However, although green tea polyphenols may be expected to inhibit the progression of Parkinson's disease on the basis of their known antioxidant activity, this has not previously been established. In the present study, the authors evaluated the neuroprotective effects of green tea polyphenols in the Parkinson's disease pathol. cell model. The results show that the natural antioxidants have significant inhibitory effects against apoptosis induced by oxidative stress. 6-Hydroxydopamine (6-OHDA)-induced apoptosis in catecholaminergic PC12 cells was chosen as the in vitro model of Parkinson's disease in the study. Apoptotic characteristics of PC12 cells were assessed by MTT assay, flow cytometry, fluorescence microscopy, and DNA fragmentation. Green tea polyphenols and their major component, EGCG, at a concentration of 200 $\mu M,$ exert significant protective effects against 6-OHDA-induced PC12 cell apoptosis. EGCG is more effective than the mixture of green tea polyphenols. The antioxidant function of green tea polyphenols may account for this neuroprotective effect. The present study supports the notion that green tea polyphenols have the potential to be effective as neuropreventive agents for the treatment of neurodegenerative diseases.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3 84 S L2 AND ASSAY

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